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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/870,141

05/30/2001

Haihong Zheng

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10/28/2004

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EXAMINER

WILSON, ROBERT W

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 10/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/870,141

Applicant(s)

ZHENG ET AL.

Examiner

Robert W Wilson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 1-6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/30/01.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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***Detailed Action***

**1.0** The application of Zheng entitled METHOD OF COMMUNICATING A FLOW OF DATA PACKETS ACROSS A NETWORK which was filed on 5/30/01 without foreign priority was examined. Claims 1-6 are pending. None of the Non-Patent Literature IDS documents were included in the case; consequently, the examiner could not review these references. The examiner requests that the applicant resubmit these references if they desire for them to be considered.

***Claim Rejections - 35 USC § 103***

**2.0** The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**3.0** **Claims 1-6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderlind (U.S. Patent No.; 6,781,991 B1).

Referring to **Claim 1**, Anderlind teaches: A method of communicating a flow of data packets across a network (Figure 1 shows a method of communicating a flow of packets through NODES which are routers with switching capability per Figs 2 & 3 and which route packets per Figs 8B or col. 9 line 50-67)

Said network comprising routing means including communication nodes and communication endpoints (The HOSTs are the endpoints and the NODEs are the nodes which have routers per Fig 1)

Wherein the data packet is structured to have a plurality of fields including header fields and payload files and such a data packet is communicated from endpoint to endpoint via at least one node (The data packet is sent from HOST to HOST per Fig 1 and has the fields per Fig 8B and is routed or sent between the NODEs per Fig 1)

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The method comprising the steps of:

Generating (S31) a flow identity number for said flow by an originating endpoint of said flow (A FLOW LABEL or flow identity number and SOURCE ADDRESS are created per Fig 8B and utilized to route the packets between HOSTs or endpoints per Fig 1 and 8B)

Writing (S32), by said originating endpoints, at least a source address of said flow and a destination address of said flow into header fields of each of data packets belonging to said flow (A FLOW LABEL or flow identity number and SOURCE ADDRESS are created per Fig 8B and utilized to route the packets between HOSTs or endpoints per Fig 1 and 8B. The reference teaches that the routers monitor and route the packets per col. 2 line 12 –67 or per Figures 2 & 3)

Writing (S32) said flow identity number into a header field of each data packet belonging to said flow which is examined by every routing means along the communication path of said flow, but remains unchanged during the whole communication (A FLOW LABEL or flow identity number and SOURCE ADDRESS are created per Fig 8B and utilized to route the packets between HOSTs or endpoints per Fig 1 and 8B. The reference teaches that the routers monitor and route the packets per col. 2 line 12 –67 or per Figures 2 & 3 which means that the packets remain unchanged by the routers)

Examining (S33) the header fields containing said flow identity number, said source address and said destination address by every routing means along the communication path of said flow (The FLOW LABEL or flow identity number, SOURCE ADDRESS, and DESTINATION ADDRESS per Fig 8B are utilized by the NODES per Fig 1 or routing means)

Said flow is uniquely identified by the flow identity number being unique itself, or by combination of said source address and said flow identity number, or by combination of said source address and said destination address and said flow identity number (The reference teaches that the packet contains a FLOW LABEL or flow identity number, SOURCE ADDRESS, and DESTINATION ADDRESS in order to uniquely identify the flow per Fig 8B)

Anderlind does not expressly call for: writing by the endpoints but teaches that the NODEs per Fig 1 which contain routers per Figs 2& 3 monitor and route the packets per col. 2 lines 11-67.

It would have been obvious to one of ordinary skill in the art at the time of the invention that the endpoints of Anderlind write the FLOW LABEL, SOURCE ADDRESS, and DESTINATION ADDRESS in order for the invention to work.

**In Addition Anderlind teaches:**

Regarding **Claim 2**, further comprising the steps of recognizing (S34) by said routing means that data packets belong together by identifying a flow thereof by means of the flow identity number itself, or by combination of said source address and said flow identity number, or by combination

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of said source address and said destination address and said flow identity number, and processing said flow by said routing means (The reference teaches that the packet contains a FLOW LABEL or flow identity number, SOURCE ADDRESS, and DESTINATION ADDRESS per Fig 8B in order to uniquely identify the flow and route the packets per Fig 1)

Regarding **Claim 3**, wherein the communication is done via the Internet protocol according to version 6 thereof, so that the data packets are structured according to the document "REQUEST of COMMENT 2460" of the "Internet Engineering Task Force" (The primary reference teaches the controller per Figs 2-3 in the NODEs per Fig 1 can route IPv6 packets per col. 9 lines 50-67. The examiner takes official notice that RFC 2460 of the Internet Engineering Task Force is well known in the art. It would have been obvious to one of ordinary skill in the art that the IPv6 packets of Anderlind which are IPv6 meet the requirements of RFC2460 in order to be standards compliant)

Regarding **Claim 4**, wherein said header field containing said flow identity number is a flow identity option field in the HOP-by-HOP Options header (The applicant broadly claims "wherein said header field containing said flow identity number is a flow identity option field in the HOP-by-HOP Options header". The reference teaches a FLOW LABEL and HOP LIMIT in the header per Fig 8B. It would have been obvious to one of ordinary skill in the art at the time of the invention that the FLOW LABEL and HOP LIMIT perform the same function as header field containing said flow identity number is a flow identity option field in the HOP-by-HOP Options header)

Regarding **Claim 5**, wherein the flow of data packets corresponds to a Voice over Internet Protocol call (The Primary reference teaches FLOW LABEL per Fig 8B. The examiner takes official notice utilizing flow identifiers with VoIP is well known in the art per Jorgensen (U.S. Patent No.: col. 60 lines 37-67. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize VoIP in the network of Anderlind because it is a type of flow)

Regarding **Claim 6**, wherein the flow identity number is generated as a concatenation of source address and a sequence number (The primary reference teaches a FLOW LABEL per Fig 8B. The examiner takes official notice that defining values for FLOW IDENTIFIERS or FLOW LABELS based upon combination of values from the header; such as , SOURCE ADDRESS and miniheader value of SEQUENCE NUMBER is well known in the art per Gupta (U.S. Patent No.: 6,590, 895 B1) col. 3 lines 1-25. It would have been obvious to one of ordinary skill in the art at the time of the invention to add the method of assigning a FLOW IDENTIFIER of Gupta to the network of Anderlind in order to uniquely define the FLOW LABELS.)

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***Claim Objections***

**4.0**     **Claims 1-6** are objected to because of the following informalities: The parenthetical references S31-S35 in the claims make the claims unclear. The examiner recommends that the applicant delete these references. Appropriate correction is required.

***Conclusion***

**5.0**     Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W Wilson whose telephone number is 571/272-3075. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on 571/272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Robert W Wilson  
Examiner  
Art Unit 2661

RWW  
October 19, 2004



KENNETH VANDERPUYE  
PRIMARY EXAMINER